

Claims

1. An electronic messaging system comprising:

(a) a plurality of physical units, each comprising:

(i) a microprocessor having a memory associated therewith,

(ii) a plurality of visual signaling devices controlled by the

microprocessor; and

(iii) a paging receiver responsive to a predetermined RF carrier frequency transmitted by a paging terminal and adapted to receive encoded messages in accordance with a predetermined protocol from said paging terminal, said encoded messages including an address code and whereby only those physical units whose paging receiver is tuned to said predetermined carrier frequency, and having an address matching said address code, can forward the data to said microprocessor for causing the microprocessor to actuate one or more of the visual signaling devices in accordance with the received data for providing notification of a predetermined event.

2. The electronic messaging system as in claim 1 wherein the visual

signaling devices are selected from a group consisting of light-emitting diodes, liquid crystal displays, plasma displays and electro luminance displays.

3. The electronic messaging system as in claim 1 wherein the visual

signaling devices are liquid crystal displays.

4. The electronic message system as in claim 1 wherein the physical unit retains a historical log in said memory for past notifications received.

5. The electronic messaging system as in claim 2 and further including icons physically associated with predetermined ones of the plurality of signaling devices for providing a non-lingual indication of the event that is the subject of the received data.

6. The electronic messaging system as in claim 2 and further including an auxiliary jack to enable the use of remote attention getting devices.

5 7. The electronic messaging system as in claim 2 and further including a alpha/numeric display for receiving text messages.

8. The electronic messaging system as in claim 1 and further including an audible signaling device controlled by the microprocessor.

10 9. The electronic messaging system as in claim 1 and further including an AC power source and having a DC battery backup in event of an AC power failure.

15 10. The electronic messaging system as in claim 9 wherein the battery backup is polarity insensitive.

11. The electronic messaging system as in claim 8 wherein the microprocessor includes a memory for storing a code list to which a given physical unit will respond when data from the paging terminal matches an entry in said code list.

20 12. The electronic messaging system as in claim 11 wherein the microprocessor is programmed to respond in a way dependent upon which entry in the code list is matched to selectively activate said visual and audible signaling devices.

25 13. The electronic messaging system as in claim 6 wherein the microprocessor of the physical units may be remotely programmed from a monitoring center while located remotely from said monitoring center.

30 14. The electronic messaging system as in claim 12 and further including a manual operable end user interface switch which, when actuated, sends a signal to the microprocessor for deactivating those signaling devices which the microprocessor

allows to be end user deactivated.

15. The electronic messaging system as in claim 5 wherein selected ones of the plurality of visual signaling devices provide operational status of the electronic messaging system to a person observing a physical unit.

10 16. The electronic messaging system as in claim 5 wherein the electronic messaging system or portions thereof may be enabled or disabled from a remotely located monitoring center.

15 17. An electronic messaging system comprising:
(a) a monitoring center for accepting alerts from authorized agencies;
(b) at least one paging terminal having the ability to broadcast a radio frequency carrier suitably modulated with information including addressing data and message data, said at least one paging terminal adapted to receive paging instructions from said monitoring center pertaining to an alert;
(c) a plurality of physical units, each including
(i) a receiver tuned to said carrier frequency, the receiver including a demodulator for recovering the addressing data and message data,
(ii) a microprocessor coupled to receive the addressing data and message data, the microprocessor having a memory for storing a code list, and
(iii) a plurality of visual signaling devices controlled by the microprocessor, selected ones of the plurality of visual signaling devices being activated only when received addressing data matches an entry in said code list.

20 25 18. The electronic messaging system of claim 17 wherein the one(s) of the plurality of visual signaling devices activated is determined from said message data.

30 19. The electronic messaging system of claim 18 wherein the visual

signaling devices are light sources.

20. The electronic messaging system of claim 19 and further including icons adapted to be illuminated by said light sources, the icons representing the nature of alerts being signaled.

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21. The electronic messaging system of claim 19 wherein the plurality of visual signaling devices including an array of light sources forming a predetermined pattern to enhance the attraction of attention by an observer that an alert condition is being signaled.

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22. The electronic messaging system as in any one of claims 17-21 and further including an audible alarm in the physical unit controlled by the microprocessor.

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23. The electronic messaging system of claim 22 and further including a manually operated switch coupled to the microprocessor for selectively extinguishing the audible alarm and predetermined ones of the visual indicating devices.

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24. The electronic messaging system as in claim 17 wherein the addressing data includes a cap code associated with a carrier frequency to which a physical unit may be tuned.

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25. The electronic messaging system of claim 17 wherein selected ones of the plurality of visual signaling devices provide an indication of operating status of the electronic messaging system.

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26. The electronic messaging system of claim 17 wherein the monitoring center is coupled through one of a public switched telephone network and a data network to the paging terminal.

27. The electronic messaging system of claim 17 wherein message data includes a test code for causing one of the plurality of visual signaling devices of the physical unit to be activated when the paging terminal and the receiver, the microprocessor and the visual signaling devices are operational.

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28. The electronic messaging system of claim 17 wherein the end to end system tests and alerts may be performed on an individual, group, or global basis.

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29. The electronic messaging system as in claim 17 wherein the plurality of physical units can be grouped either on a geographical or a logical basis using said addressing data.

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30. The electronic messaging system as in claim 29 wherein multiple visual signaling devices can be simultaneously activated to signal multiple alert conditions at a given time.

31. The electronic messaging system as in claim 17 wherein the plurality of visual indicating devices are each capable of operating in at least three distinct modes.

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32. The electronic messaging system as in claim 17 wherein status of the plurality of visual and audible indicating devices may be changed remotely from the monitoring center.

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33. The electronic messaging system as in claim 22 wherein the audible alarm can operate in a plurality of modes.